National Personal Protective Technology Laboratory

CBRN SCBA USER'S GUIDE

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CDC Workplace Safety and Health

NIOSH

NPPTL Research to Practice through Partnerships

CBRN Respirator Standards

The findings and conclusions in this presentation have not been formally disseminated by the National Institute for Occupational Safety and Health and should not be construed to represent any agency determination or policy.

CBRN SCBA Use Logic Precedence

...where work practices and engineering controls alone cannot reduce exposure levels to below the occupational exposure level, respirator use is essential..... *OSHA 3079, Respiratory Protection, 2002 (Revised)*

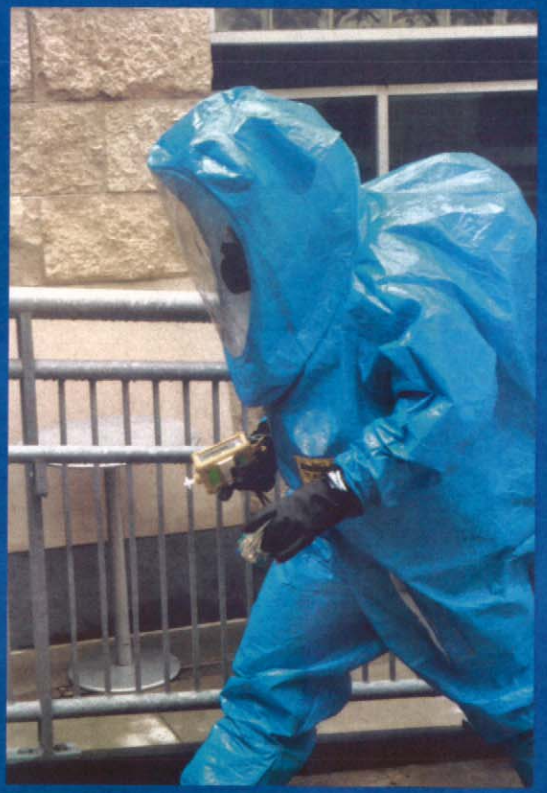
.....Respirator means any device designed to provide the wearer with respiratory protection against inhalation of a hazardous atmosphere.... *DHHS 42 CFR Part 84, 84.2, (aa), 1995*

CBRN SCBA User's Guide

- **NPPTL Focus**
  - **Develop a NIOSH numbered publication entitled "*Guide to the Technical Use of Chemical, Biological, Radiological and Nuclear (CBRN) Open Circuit, Pressure-Demand Self-Contained Breathing Apparatus (SCBA) Respirators Certified Under 42 CFR Part 84.*"**
  - **Short title is "CBRN SCBA User's Guide"**
  - **Assist emergency responders**
    - **in determining how to attain the best in-use performance from CBRN SCBA**
    - **how to enhance training protocols and how to be better prepared at the technical end-user level.**

CBRN SCBA User's Guide Outline

- **Chapter 1 – Background, Rationale and Design Requirements**
- **Chapter 2 – Certification Approval Factors**
- **Chapter 3 – Production Model Safety Markings**
- **Chapter 4 – CBRN Respirator Use Life (CRUL)**
- **Chapter 5 – Before, During and After Use Checks**
- **Chapter 6 - Summary**
- **Appendices**
  - Definitions and Glossary
  - FAQ
  - Sample Label
  - User Guidance Checklist
  - Training Aid
  - References Cited and Bibliography



Chapter 4: CBRN Respirator Use Life (CRUL)

- Draft working acronym
- C-R-U-L is an in-use time value
- CWA only. NA to TIC, RAD and BIO
- CBRN SCBA CRUL is Six (6) hours
- Six (6) hours is from Limitation "U"

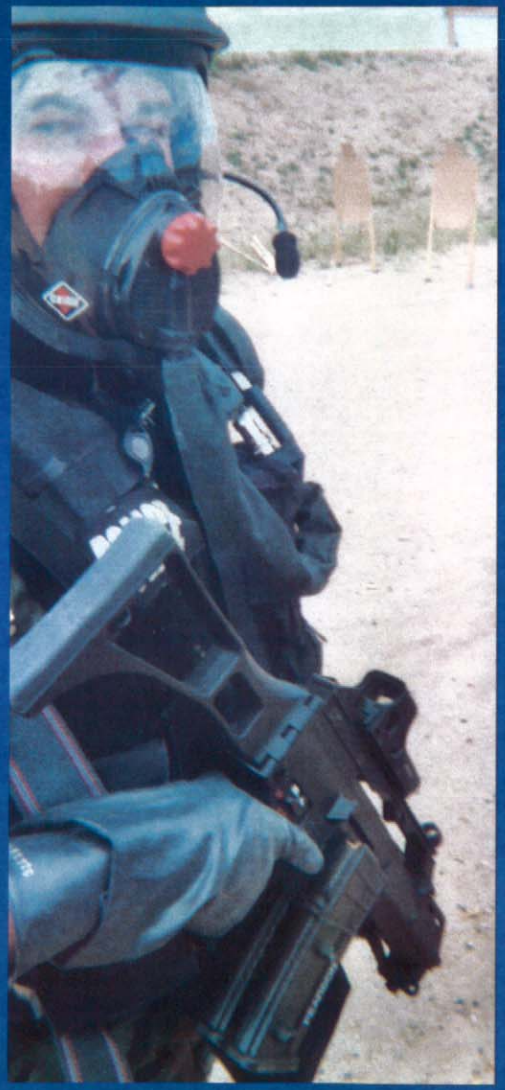
- "U" = "The respirator should not be used beyond 6 hours after initial exposure to chemical warfare agents to avoid possibility of agent permeation."
- Unit of measure is hours and elapsed use is not subdivided

Chapter 5: Before, During and After Use Actions/Checks

- *Before:* inspection, maintenance, training & sampling
- *During:* donning, CRUL, decon, escape, failure and detection
- *After:* unmasking, doffing, decon, handling & disposal
- *Integration with Suits*: HAZWOPER levels, C-R-U-L, Suit Pass Thru Devices and Bomb Tech EOD suits

Seven Recognition Traits for CBRN SCBA

- Back-frame harness assembly
  - NIOSH Industrial label
  - SEI/NFPA harness label
  - CBRN Agent Approved label
  - CBRN Agent Approved (Retrofit)
- Paper Insert in UI
- TC 13F-XXXXCBRN Approval Number
- Unique Manufacturer "CBRN" Markings
- Difference between "NIOSH Approved" and "NIOSH CBRN Approved"



Responder CBRN & Non-CBRN SCBA Use

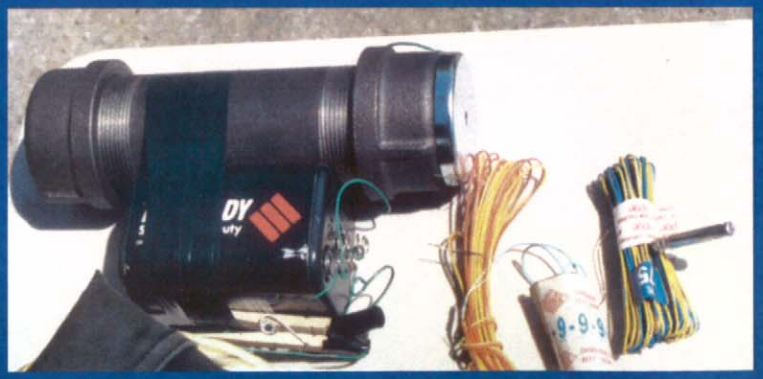
- Both non-CBRN SCBA and CBRN SCBA are in use.
- Fire service CBRN SCBA use is progressing
- Law enforcement S.W.A.T. use traditional industrial (non-CBRN) SCBA
- Bomb squads use non-CBRN SCBA

Observations of Respirator Use in 2005

- Full Scale Exercises
  - Non-CBRN SCBA in use
  - CBRN APR in use
  - Non-CBRN APR also in use
  - Federal responders on site
  - CSI analysis in Level A/B
  - SCBA to suit-hood gap
  - Local responders in level C
  - Full Spectrum of PPE used

Observations of Respirator Use in 2005

- S.W.A.T. SCBA Training Course
  - NFPA compliance not requested
  - NIOSH-CBRN approval not used
  - NIOSH Industrial SCBA in use
  - NTOA recommendations:
    - Ballistic hardened CBRN SCBA
    - Emergency release "button" on CBRN SCBA
    - Reduction of noise and light



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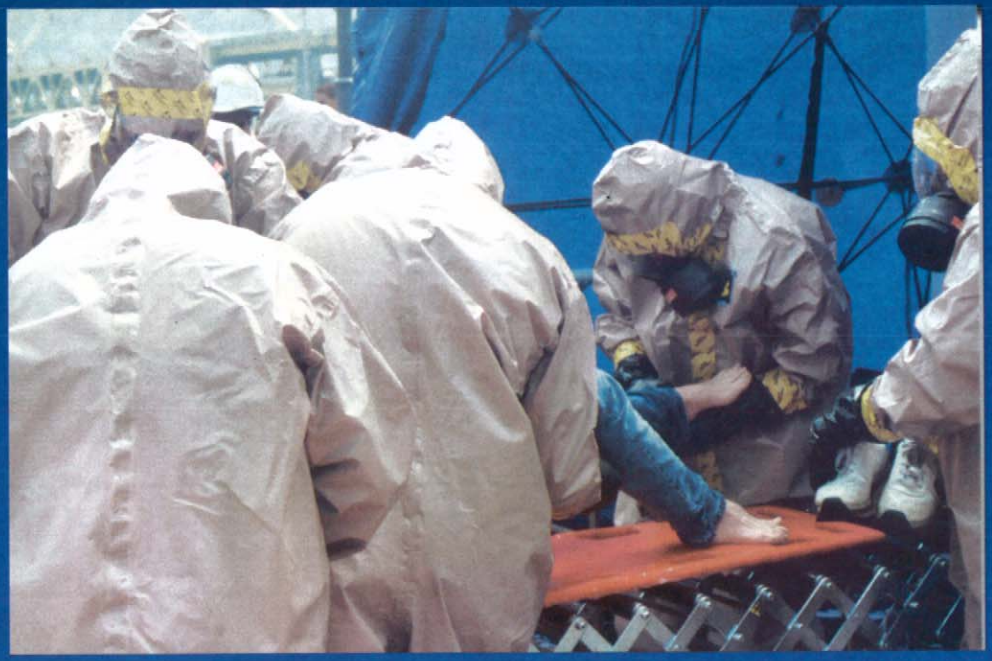
NPPTL Year Month Day File name

Use Guide Contact Information



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